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ABSTRACT

This document presents projected operating expenses for the Ontario universities during academic year 1969-70 as based on reports of operating expenses in academic years 1967-68 and 1968-69. The basic income units are provided for academic salaries, graduate student teaching salaries, academic support salaries, library facilities, fringe benefits, administrative expenses, maintenance expenses, and other operating expenses. In addition, an estimate of the needed increase in total provincial grants is presented and an operating formula for the support of medical education is offered for consideration. (HS)

ED 069222

REPORT TO THE COMMITTEE ON UNIVERSITY AFFAIRS

SUBMISSION ON THE VALUE OF THE BASIC INCOME UNIT 1969—1970

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COMMITTEE OF
PRESIDENTS OF UNIVERSITIES
OF ONTARIO

SUBCOMMITTEE ON
OPERATING GRANTS

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Introduction

In August and December 1967, the Committee of Presidents of the Universities of Ontario prepared reports in which the universities' requirements for operating income for 1968-69 were analyzed and presented to the Committee on University Affairs. These requirements were expressed as desired and minimum increases to the value of the income unit for 1968-69. The August report was based on the intended spending patterns of the eight emerged universities - that is on the percentage of combined resources which these universities proposed to apply, on the average, to the major components of expense in 1967-68. Subsequently, in the December report, with the universities having 1967-68 enrolment data in hand, it was possible to make a comparison of the budgeted spending patterns with those which were implied in submissions if the funds were made available. Also, comment was made about some of the factors which influenced the budgeted patterns for 1967-68 and which obviously had a bearing on the requirements for 1968-69.

The principal thesis of the August report was that there are competing demands on the universities' resources which induce pressures during the budgeting process. In the budgeting process, components of expense which are escalating and have little elasticity, in effect take money from other less demanding components. When this happens, as it has so often in the past, we have the continuing situation of foregoing desired improvements for yet another year.

First in priority among the expense components is Academic Salaries. Average salaries have been escalating rapidly in the last several years

principally because of market pressures. Associated with salaries is the ratio of staff to weighted enrolment, which serves as an indicator of quality though admittedly one which is only used because of the difficulty in measuring quality by any other means. In the August report the interrelationship between these two factors was demonstrated in the form of a tradeoff table which provided values in the table showing expenses per unit with various combinations of staff to weighted enrolment ratios and average salaries. With this table it was possible to show, for example, that the same funding level for academic salaries would support an average salary increase of 16% at a staff to weighted enrolment ratio of 1 to 25 or alternatively a 12% increase at a staff to weighted enrolment ration of 1 to 24. It was pointed out that the university teacher market is international in scope and very competitive and that it was necessary to provide adequately for both the hiring of new staff and remaining competitive in salary levels. Comparisons of Ontario salary levels were made to other jurisdictions (both Canadian and American) with normalized currency.

In the absence of a more precise measuring device which would take demand factors and carrying costs into account, library book needs were analyzed against Clapp-Jordan standards and the funds necessary for library salaries were related to these book needs. These book needs were presented as needs to recover admitted shortages and as needs to meet the increases in staff, students, and new programs.

Other Academic Operating Expenses, Administrative and Maintenance Expenses were analyzed by trend analysis only with needs extrapolated from the trends of past data.

The August report concluded with a table showing alternative increases in the value of the basic unit with a 26.4% increase to $1669 being the preferred value.

As we pointed out before, the December supplement made use of November 67 budget and enrolment data to update the information on allocation of funds to components of expense in 1967-68. With this added information it was possible to show that while there was some elasticity in the Academic Salaries component, there was indeed a shift of funds from Other Academic Expenses mainly to Library; in comparing desired allocation to budgeted allocation, Library needs assumed a priority level equal to Academic Salaries in the tradeoff pattern of 1967-68.

Additional information was presented on salary scales at other universities in Canada, the CAAT's and at OISE and OCE with some comments on how the competition from the CAAT's for technical support staff is likely to give un upward push to the salary levels of skilled laboratory technicians, mechanicians, and computor programmers who are now in very short supply. The December supplement concluded with a display of three possible financing patterns ranging from the desired level of $1669 per unit to a minimum level of $1528.

Analysis of Operating Income

For background information the following summary of income information for 1968-69 is drawn from UA forms recently submitted. About 97,000 full-time equivalent students (85,000 full-time) converting to about 163,000 income units are enrolled in the 14 provincially assisted universities in 1968-69. The value of the basic unit in 1968-69 was set at the level of $1450 - an increase of $130 over the 1967-68 value of $1320. (This was $78 per unit less than the minimum requested by the Presidents). The basic operating income to the 14 universities is approximately $236 million. Of this total about $46 million is subtracted for standard fee allowance yielding a formula grant total of about $190 million. Special grants amounting to $18 million were awarded for emergence of new universities, support for bilingualism, expansion of programs in medicine, veterinary medicine, library science, biology field work, nursing, and law and for meeting additional costs of operating three semester programs. The total of formula and special grants amounts to about $208 million. In addition a special grant of $4.5 million was established to provide for the development and support of computer systems hardware.

Structure of the Analysis for Recommending the BIU in 1969-70

The method of analysis contained in the August report is again used to present the arguments for increase in the value of the basic unit. We are mindful of the requests by CUA at the December 1967 meeting that our staff to weighted enrolment ratios should reflect full-time staff and that it would be helpful to break out Other Operating Expense (Adademic) in greater detail. Unfortunately, time and circumstances did not permit accomplishing the latter. It will be recalled that DUA required no breakdown of operating funds estimates for 1968-69 so it has been difficult to get detailed breakdowns at this point in time. We agree that this detail is desirable however and we will provide the information in a supplement to this report to follow shortly.

As in the August 67 report it should be emphasized that this report is based on a theoretical average allocation of resources to a number of common elements of university spending. This theoretical allocation is based on the budgeted 1967-68 and 1968-69 spending patterns of the eight emerged universities. Like the previous report all data are converted to dollars per unit. In this way we are able to derive total unit values and increases to same without having to account explicitly for additional income caused by changes in enrolment. Once again, we have excluded the six emerging institutions from this analysis because of the special condition of supplementary funding as a percentage of basic operating income. In the next year we expect to change our analysis in such a way that all 14 universities may be represented properly.

We will begin with a breakdown of the expenses per income unit averaged from the eight universities budgets for 1967-68 and 1968-69,

and will proceed to show the increases in the components that we think will be necessary in 1969-70 and, where feasible, we will offer increases which we consider will meet a minimum requirement in addition to our desired goal.

Table 1 shows the breakdown of weighted average expense per unit of ten components of expense and the average total budgeted by the eight universities in 1967-68 and 1968-69. Also shown are the percentages of each component to the total and the percentage of change from year to year.

The largest positive percentage changes are in academic support staff salaries, pension and other fringe benefits and other operating expenses. Of course, the base is important in interpreting these percentage increases. The changes in the percentage of total do give indications of the relative priorities observed in the budgeting process from year to year. It would appear that the subtotal of Academic Expenses has increased slightly in share of the resources with the largest increases occurring in the above-mentioned components. Ordinarily we would have expected full time and part time academic salaries to have increased at the expense of other components. That this component did not is partially caused by a deterioration of staff to weighted enrolment ratio from 1967-68 to 1968-69 (1/24.7 in 1967-68 and 1/27.4 in 1968-69 for FT staff to Weighted Enrolment).

TABLE I

BREAKDOWN OF COMPONENT EXPENSES PER INCOME UNIT IN 1967-68 AND 1968-69 AND PERCENTAGE CHANGE FROM 1967-68

	1967-68 Expense per Income Unit And % of Total		1968-69 Expense per Income Unit and % of Total		Percent Change From 67-68 to 68-69
Full-Time and Part-time Teaching Staff Salaries	567.5	40.8	581.4	38.3	2.4
Graduate Student Teaching Salaries	55.6	4.0	62.4	4.1	12.2
Support Staff Salaries	141.9	10.2	181.6	12.0	28.0
Library Staff Salaries	61.2	4.4	65.9	4.3	7.7
Library Books	47.3	3.4	48.4	3.2	2.3
Pension and Other Fringe Benefits	48.7	3.5	60.2	4.0	23.6
Other Academic Expenses	155.8	11.2	185.3	12.2	18.9
Subtotal of Academic Expenses	1078.0	77.5	1185.2	78.1	9.9
Administrative Expenses Including Salaries	84.9	6.1	101.3	6.7	19.3
Maintenance Expenses Including Salaries	155.8	11.2	172.7	11.4	10.8
Miscellaneous and Other Expenses	72.3	5.2	58.4	3.9	-19.2
Subtotal of Administrative Operations and Maintenance Expenses	313.0	22.5	332.4	21.9	6.2
Grand Total	1391.0	100.0	1517.6	100.0	9.1
Less Special Grants/Income Unit	71.0		67.6		4.8
Actual Value of the Income Unit	1320.0		1450.0		9.8

Academic Salaries (38.3 of Total)

The DUA request for information on academic staff (UA 1) for 1968-69 and estimates for 1969-70 specifies that staff on leave of absence are to be excluded. In our analysis it is also proper to exclude OHSC funds paid to medical staff. We would have liked to continue the comparisons of staff to weighted enrolments begun last year but these changes have made it extremely cumbersome to do so. Thus, our FTE staff to weighted enrolment ratios cannot be related back to the previous analyses. Despite this shortcoming we feel that the analysis is improved considerably by these exclusions.

Taking account of these exclusions and beginning with 1968-69 as a new base year, Table 2 shows that the 1968-69 FTE staff to weighted enrolment ratio is about 1:24.5 and that if the number of income units at these eight universities increases from 132,833 in 1968-69 to 147,240 in 1969-70 the number of new FTE staff needed to maintain this ratio is about 580. At 1968-69 proportions this would mean adding about 520 full-time staff.

In the August 67 report we showed that the dispersion was reduced by using the staff/weighted enrolment ratio in lieu of staff/student ratio. The dispersion among the eight universities seems to be lessened even more by converting to full-time equivalent staff. It should be emphasized that a low ratio or high ratio should not be interpreted as good or bad in either case. These ratios merely reflect the weightings placed upon the courses of study and if a university happens to have a high or low BIU/student ratio this will be reflected in the ratio; in statistical terms, the weights in the formula have accounted for some of the variability but there is still

a substantial residual variability making such inferences improper. These measures will be of value in tracking their changes from year to year.

TABLE 2

FULL-TIME EQUIVALENT[1/] STAFF TO INCOME RATIOS FOR 1968-69 AND 1969-70
AND FULL-TIME STAFF TO INCOME UNIT RATIOS FOR 1968-69

	1968-69					1969-70	
University	Number of Full-Time Staff (Budgeted)	Number of Full-Time Equivalent Staff (Budgeted)	Income Units	Full-Time Staff to Income Unit Ratio	FTE Staff to Income Unit Ratio	Income Units	Number of FTE Staff Needed to Maintain FTE Staff to Income Unit Ratio
Toronto	1,568	1,830.7	42,058.4	1:26.8	1:23.0	45,191.2	1,965.2
Western	651	698.1	17,096.2	1:26.3	1:24.5	18,443.0	753.0
Queen's	531	548.9	13,749.5	1:25.9	1:25.0	14,673.9	587.1
McMaster	472	521.6	13,092.9	1:27.7	1:25.1	15,506.8	618.0
Waterloo	461	519.6	15,377.9	1:33.4	1:29.6	17,607.1	594.9
Carleton	367	435.3	10,207.9	1:27.8	1:23.5	11,340.9	482.7
Ottawa	520	565.0	13,884.6	1:26.7	1:24.6	15,621.9	635.2
Windsor	285	310.6	7,366.0	1:25.8	1:23.7	8,855.0	373.7
TOTAL	4,855	5,429.8	132,833.4	1:27.4	1:24.5	147,239.8	6,009.8

1/ Includes full-time staff and full-time equivalent of part-time staff (calculated by dividing the total salaries paid to part-time staff by the average full-time salary). Staff paid from OHSC funds and staff on leave of absence are not included in the totals.

Salary Level Comparisons

In 1968-69 about 38% of operating income will be allocated to full-time and part-time teaching staff salaries with an additional 20% to graduate student teaching assistants, support staff and library staff. Total salaries, academic, administrative and technical comprise about 70% of total operating expenses. Because all salaries take such a large portion of the operating budget much of our estimate of need is based on this portion - particularly on academic salaries.

For the estimate of salary needs we proceed from the following objectives:

1. It is necessary to maintain staff/weighted enrolment ratios at least at the present level since high ratios in university education are prejudicial to academic excellence and student satisfaction.
2. It is necessary to maintain academic salaries at levels which will be competitive with levels in other Canadian and American universities and which will exceed that of the junior colleges, CAAT's and secondary schools.
3. It is necessary to maintain academic salaries, fringe benefits and non-monetary incentives at levels that will be competitive enough to attract a reasonable share of the most brilliant and highly motivated young graduates to academic careers rather than to careers in business, public service, or the professions such as law, dentistry, and medicine.
4. It is necessary to improve salary levels of highly qualified technical and administrative support staff.

With regard to the first objective, we believe that a deterioration in staff/weighted enrolment ratio (or the corollary staff/student ratio)

would be to court the type of campus disruptions that are so prevalent in the United States and in Europe. While it is true that there are other factors that have contributed to this discontent in the United States it cannot be denied that there are large numbers of students in all parts of the world that are disenchanted with the current modes of transmission of educational information featuring large lecture classes and all of the concomitant impersonalities that go with them. The Macpherson Report, among others, has emphasized the need for positive action in changing toward smaller educational groupings particularly in the first and second academic years. To allow the ratio to deteriorate would be to make this important objective impossible to achieve.

In considering the second objective, it is generally conceded that published salary minimums for academic ranks have greatest impact in the hiring of new staff at the junior level. While there is some elasticity in this minimum, no university would dare to get seriously out of line with others in the same jurisdiction. The published figures serve the purpose of advertising to possible new staff in other localities and no one would deny that words about salaries get passed around rather quickly in the academic profession. Further, if an institution habitually hires at a level above the minimum this word also gets around and the published minimum becomes a meaningless figure.

The average salary within a rank and the average over all ranks is of value in comparing jurisdictions where age and frequency in rank are assumed to be comparable. In the August report we showed a comparison of Ontario University average salaries to selected universities in the Western Provinces and to jurisdictions in the United States. The 1967-68 information from CAUT shows that the average salaries in the Ontario system

went from $11,444 in 1966-67 to $12,697 - an increase of $1,257. The information for the universities of the Western Provinces (Manitoba, Saskatchewan, Alberta-Edmonton, Alberta-Calgary, British Columbia, Simon Fraser and Victoria) shows a gain in average from $11,640 to $13,038 - an increase of $1,398. Thus, we have lost a little ground in this comparison.

With regard to our position vis a vis the United States jurisdictions, it is only fair to state that we have not really experienced inability to compete for teaching staff in the North American market. On the other hand, it would be improper to base our policy and long-term planning on a continuance of racial conflicts and violence in American cities. It is probable that these tragic events have made more attractive the non-financial benefits Canadian society and universities have to offer. To reason that we can afford a slowdown in faculty salary improvements because of this is to accept the premise that the war in Viet Nam, race problems, and urban violence will continue indefinitely and that Canada will never undergo similar social and political disturbances. We hope and trust that the United States will have solved some of these problems in the next few years and we would not like to see the net movement of professors to the U.S. increase as quickly as it has declined over the last few years.

Table 3 compares the salary minimums of Ontario Universities to the Western Province universities. We have separated the developing Ontario universities from the mature institutions to show how the emerging universities have had to adjust their minimums sharply upward to stay competitive. The separation also enables us to compare mature universities in the different jurisdictions. There is not much to choose in comparing

TABLE 3

1968-69 SALARY SCHEDULE MINIMUMS AT ONTARIO UNIVERSITIES AND AT SELECTED UNIVERSITIES IN THE WESTERN PROVINCES AND INCREASES OVER 1967-68

	Full Professor		Associate Professor		Assistant Professor		Lecturer	
Ontario (Emerging)	Minimum	% Inc.	Minimum	% Inc.	Minimum	% Inc.	Minimum	% Inc.
Brock	16,000	6.7	12,300	7.0	9,700	7.8	7,700	10.0
Guelph	16,000	10.3	12,500	8.7	9,800	8.9	8,100	8.0
Lakehead	16,500	7.8	12,750	8.1	10,000	7.5	8,300	7.8
Laurentian	16,500	17.0	12,750	17.0	10,000	13.9	8,250	16.2
Trent	16,000	6.7	12,600	9.6	9,500	5.6	7,500	5.6
York	15,600	4.0	11,600	3.6	9,500	4.4	7,500	25.0
AVERAGE	16,100	8.7	12,417	8.9	9,750	8.0	7,892	11.7
(Emerged)								
Toronto	15,800	3.9	11,700	3.5	9,500	3.3	7,800	4.0
Western	15,000	0.0	11,500	0.0	9,500	0.0	7,500	0.0
Queen's	15,800	1.9	12,300	2.5	9,500	3.3	2/	
McMaster	15,500	3.3	12,000	4.3	9,500	5.6	7,000	0.0
Waterloo	15,000	0.0	11,000	0.0	8,500	0.0	6,500	0.0
Carleton	16,000	6.7	12,000	6.2	9,500	5.6	2/	
Ottawa 1/	15,093	5.0	12,075	5.0	9,177	5.0	7,245	5.0
Windsor	16,000	6.7	13,000	8.3	9,750	8.3	7,750	10.7
AVERAGE	15,524	3.4	11,947	3.8	9,366	3.9	7,299	3.3
TOTAL AVERAGE	15,771	5.7	12,148	6.0	9,531	5.6	7,595	7.5
OISE	16,600	0.0	14,400	0.0	12,200	0.0	9,500	0.0
Western Provinces								
Manitoba	15,700	3.3	12,000	3.4	9,300	3.3	2/	
Saskatchewan	16,900	5.6	12,800	6.7	9,200	5.7	7,200	5.9
Alberta-Edmonton	17,500	5.4	13,000	4.0	9,500	5.6	7,000	4.1
Alberta-Calgary	17,500	5.4	13,000	4.0	9,500	5.6	7,050	4.1
British Columbia	15,200	0.0	11,300	0.0	9,200	0.0	7,500	0.0
Simon Fraser	14,000	0.0	11,000	0.0	9,000	0.0	7,000	0.0
Victoria	2/		2/		2/		2/	
AVERAGE	16,133	4.5	12,183	3.5	9,283	3.0	7,150	2.3

1/ Scales may be revised later in the year.

2/ No minimum stated.

the minimums of assistant professor and lecturer but the universities in Alberta and Saskatchewan pay higher minimums at the full and associate professor levels.

Table 4 shows the salary scale minimums at the CAAT's. There are no stated floors at the CAAT's in 1968-69 but a computed 4% increase would be as shown in the next-to-last column of Table 2. Certainly, the CAAT's are salary-competitive at the Master level for holders of the Master's degree who would qualify for the lecturer position in university. The calculated Senior College Master minimum salary exceeds the minimum for Assistant Professor who in most cases must hold a Ph.D. degree. Further, if the Senior College Master holds the Ph.D., the minimum does not require much upward escalation to achieve a hiring figure which is competitive with the minimum for Associate Professor.

Table 5 portrays a comparison of the floor salaries of Group IV high school teachers with the salary floors of lecturer at contiguous high schools and universities in Ontario. The average floor for the lowest professional academic rank in the Universities is 7% less than the average Group IV salary floor in the high schools!

We have tried to obtain information on rates of pay to professional staff in the Federal and Provincial governments but have been unsuccessful. The Pay Research Bureau informs us that they have not undertaken this kind of analysis yet. We would like to have this information however, and would urge that some research into this be undertaken.

We need say no more about the third objective. The statement is sufficient in itself. The fourth objective needs little explaining also. It is well known that the Canadian Universities "make do" with technical and administrative staff that are underpaid by any comparison. We need

TABLE 4

TEACHER SALARY SCALE MINIMUMS AT CAAT'S IN 1967-68 AND CALCULATED 4% INCREASE TO THESE MINIMUMS IN 1968-69 (1)

Grade	1967-68 Salary Minimum	1967-68 Schedule Maximums	1967-68 Provision for: Graduate Degrees Master	1967-68 Provision for: Graduate Degrees Doctorate	1968-1969 Calculated 1968-1969 Salary Minimum (2)	1968-1969 Minimum with Master's and Ph.D.
Senior College Master					10,008	12,008
Master	7,700	12,900	800	1200	8,008	10,008
Associate Master	7,200	12,000	800	1200	7,488	9,488
Assistant Master	6,800	10,600	800	1200	7,072	9,072

Ryerson Polytechnical Institute (3)

According to the Agreement the starting salary for a Master of Philosophy or Doctor of Philosophy of $9,568.00. This salary is less than the average floor for Assistant Professors for the province which is $9,800.00. However, Ryerson Polytechnical Institute does not appoint any Phil. M.'s or Ph.D. at $9568. The Extra Increments clause (Article X, 2(a) (b)) is regularly employed in the appointment of Ph.D's or Phil. M's at Ryerson. Thus, the effective minimum starting salary of Ph.D's or Phil. M's at Ryerson in 1968 is $11,128.00 and it may be as high as $14,248.

(1) The Minister of Education approved a 4% increase to salaries in 1968-69. Council of Regents omitted minimum salary figures to enable each Board of Governors to apply the increases as it deems appropriate.

(2) Senior College Master may receive a maximum of $2,000 above the basic salary for outstanding achievement.

(3) Based on the Agreement Between the Board of Governors of Ryerson Polytechnical Institute and the Ryerson Faculty Association as of July 1 1968 supplemented by field work analysis.

desperately to remove this inequity in the face of recognized need for rapid change in educational technology - information processing, institutional research, library automation, systems analysis of all kinds.

TABLE 5

FLOOR SALARIES OF GROUP IV[1] HIGH SCHOOL TEACHERS COMPARED TO SALARY FLOORS OF LECTURER[2] AT CONTIGUOUS HIGH SCHOOLS AND UNIVERSITIES IN ONTARIO

School Board	University	High School Floor	University Floor	Difference	%
1. Fort William-Port Arthur	Lakehead	8300	8300	0	0
2. Guelph	Guelph	8000	8100	+100	+ 1.3
3. Hamilton	McMaster	8100	7000	-900	-11.1
4a Kingston	Queen's	8000	not reported		
b	R.M.C.		6600	-1500	-18.8
5a Kitchener-Waterloo	Waterloo	8100	6500	-1600	-19.8
b	Waterloo Lutheran		7600	-500	- 6.7
6. London	Western Ontario	8100	7500	-600	- 7.4
7a Ottawa	Carleton	8100[3]	not reported		
b	Ottawa		7245	-855	-10.5
8. Peterborough	Trent	8000	7500	-500	- 6.2
9. St. Catharines	Brock	8100	7700	-400	- 4.9
10. Sudbury	Laurentian	8200	8250	+50	+ 0.6
11a Toronto	Toronto	8000	7800	-200	- 2.5
b	York		7500	-500	- 6.2
12. Windsor	Windsor	8100[3]	7750	-350	- 4.3
Provincial Average:		8090	7521	-569	- 7.0

(1) Academic requirement: Honour Baccalaureate plus Specialist Certificate.

(2) Academic requirement: Master's degree minimum with Ph.D. required in some discipline areas.

(3) These contracts are still in dispute, however hiring is at the level indicated.

TABLE 6

A COMPARISON OF AVERAGE SALARY AND COMPENSATION AT THE UNIVERSITIES OF THE PROVINCE OF ONTARIO, WESTERN PROVINCES, SELECTED AMERICAN STATE SYSTEMS AND PRIVATE UNIVERSITIES

SYSTEM OR INSTITUTION	1965-66			1966-67			1967-68		
	Average Salary	Average Compensation	Fringe Benefits As % of Salary	Average Salary	Average Compensation	Fringe Benefits As % of Salary	Average Salary	Average Compensation	Fringe Benefits As % of Salary
California System	$12,803	$13,936	8.8	$12,934	$14,468	11.9	$14,204	$15,938	12.2
Michigan System	11,810	12,961	9.7	12,419	13,706	10.4	12,951	14,319	10.6
New York System	12,503	13,362	6.9	13,671	14,853	8.6	14,040 2/	15,632 2/	11.3 2/
Ohio System	10,919	12,196	11.7	11,582	12,940	11.7	12,397	13,854	11.7
American Private Universities	14,030	15,791	12.6	14,863	16,769	12.8	15,618	17,660	13.1
Ontario System	10,634	11,354	6.8	11,444	12,303	7.5	12,697	13,738	8.2
Western Provinces	10,991			11,640			13,038		

1/Sources of data are summer issues of AAUP Bulletin, "Further Progress: The Economic Status of the Profession", and February issues of C.A.U.T. Bulletin. American universities salary data were converted to Canadian dollars for this analysis. An exchange rate of 7 3/4% was used for the 1967-68 conversion.

2/The figures should actually be higher since the data from two of the institutions did not indicate the retroactive salary increments.

The analysis of average Canadian and American academic salaries that appeared in the August 1967 report has been updated to include 1967-68 information on all of the universities included in that report (See Appendix 2). It will be recalled that the Canadian Provincial and American State systems for comparison were selected either because of system similarity or because of geographical proximity. Salaries and compensation are normalized to Canadian dollars using the official exchange rate as of January 1, 1968. Data on Canadian universities are expressed as 12 month salaries; the AAUP publications on American Institutions show all salaries and total compensation as 9 month figures and where necessary 11 and 12 month salaries are converted to the 9 month figure. No attempt has been made to normalize over a common number of months because of the difficulty of getting good data on just what proportion of American professors get the 2/9 of basic salary for summer months. This should be taken into account however in interpreting Table 6 and Figure 1.

While we have said that the competition for staff from the U.S. has lessened recently it is still useful to continue the analysis. We have been able to add information from the AAUP publication and to refine our information in the December supplement to show that the average salary level of the 14 Ontario universities has passed the State of Ohio average and is approaching the Michigan average. However, the Ontario and Western Provinces averages have remained virtually the same with the Western Province slope being slightly steeper. The "biennial rhythm" out of phase, of New York and California is of some statistical interest. It appears that they are looking at each other and making adjustments to achieve parity each year.

Figure 2 is a graph of the information in Table 6. It also shows that Ontario has passed Ohio and is closing in on Michigan in average salary

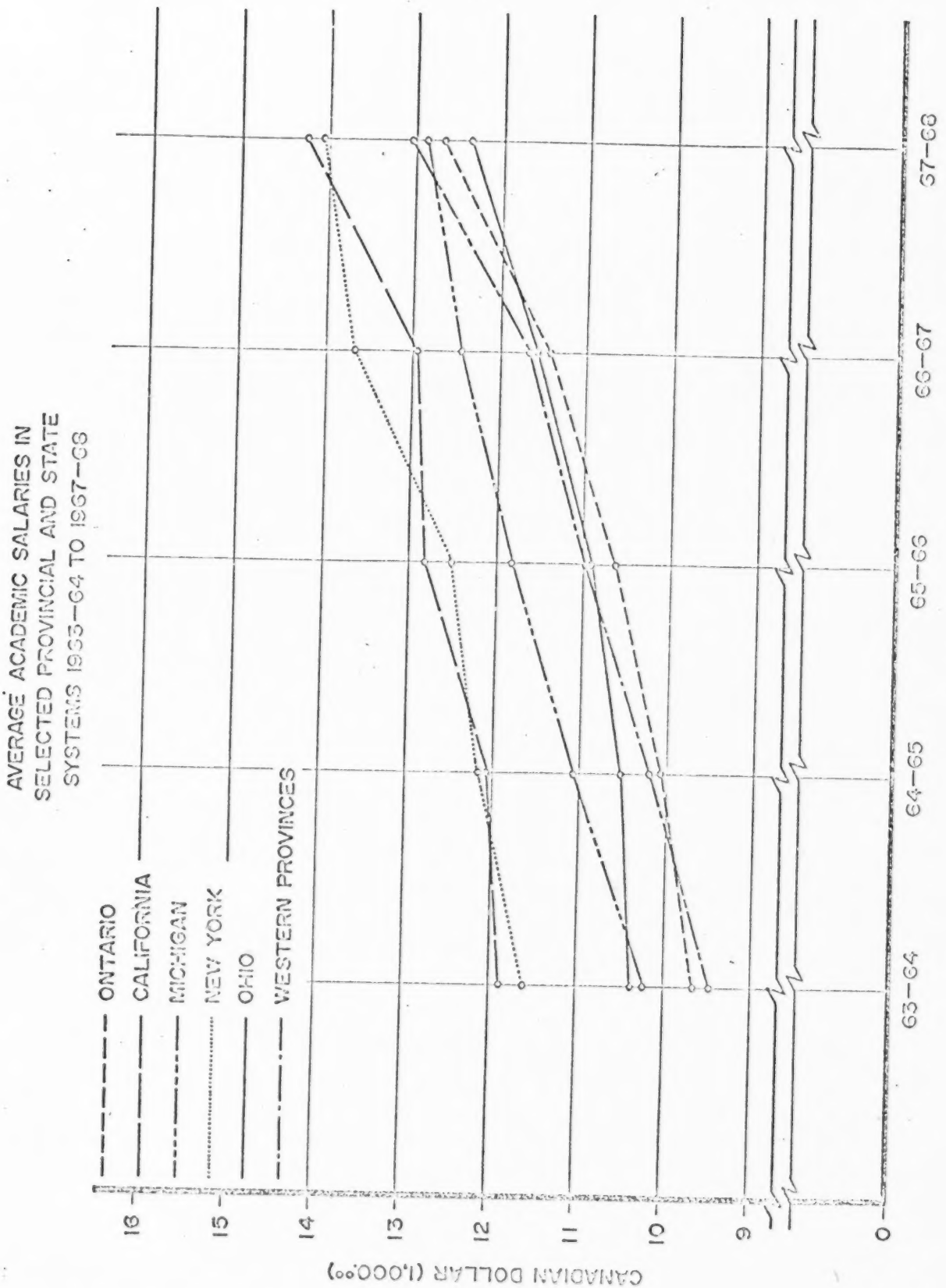

AVERAGE ACADEMIC SALARIES IN
SELECTED PROVINCIAL AND STATE
SYSTEMS 1963-64 TO 1967-68
ONTARIO
CALIFORNIA
MICHIGAN
NEW YORK
OHIO
WESTERN PROVINCES
CANADIAN DOLLAR (1,000.00)
18
15
14
13
12
11
10
9
0
63-64
64-65
65-66
66-67
67-68

FIGURE 1

levels but that it trails all the other systems shown in total compensation. We shall have more to say about fringe benefits in a later section.

Average Salary Comparisons - Ontario Universities, Conestoga and Ryerson

In the September meeting of CPUO we were requested to make some comparisons of average salary of Ontario Universities to the CAAT's and the high schools. We have been unable to get average salaries for high schools but we have data from the July 1, 1968 agreement at Ryerson and information about Conestoga which might be considered representative of other CAAT's.

	67-68	68-69
Institution	Average Salary	Average Salary
Ontario Universities*	12,697	13,681
Ryerson	NA	11,647
Conestoga	10,916	11,231

* 68-69 Average salary estimated from UA-1 forms.

67-68 Average taken from CAUT Bulletin

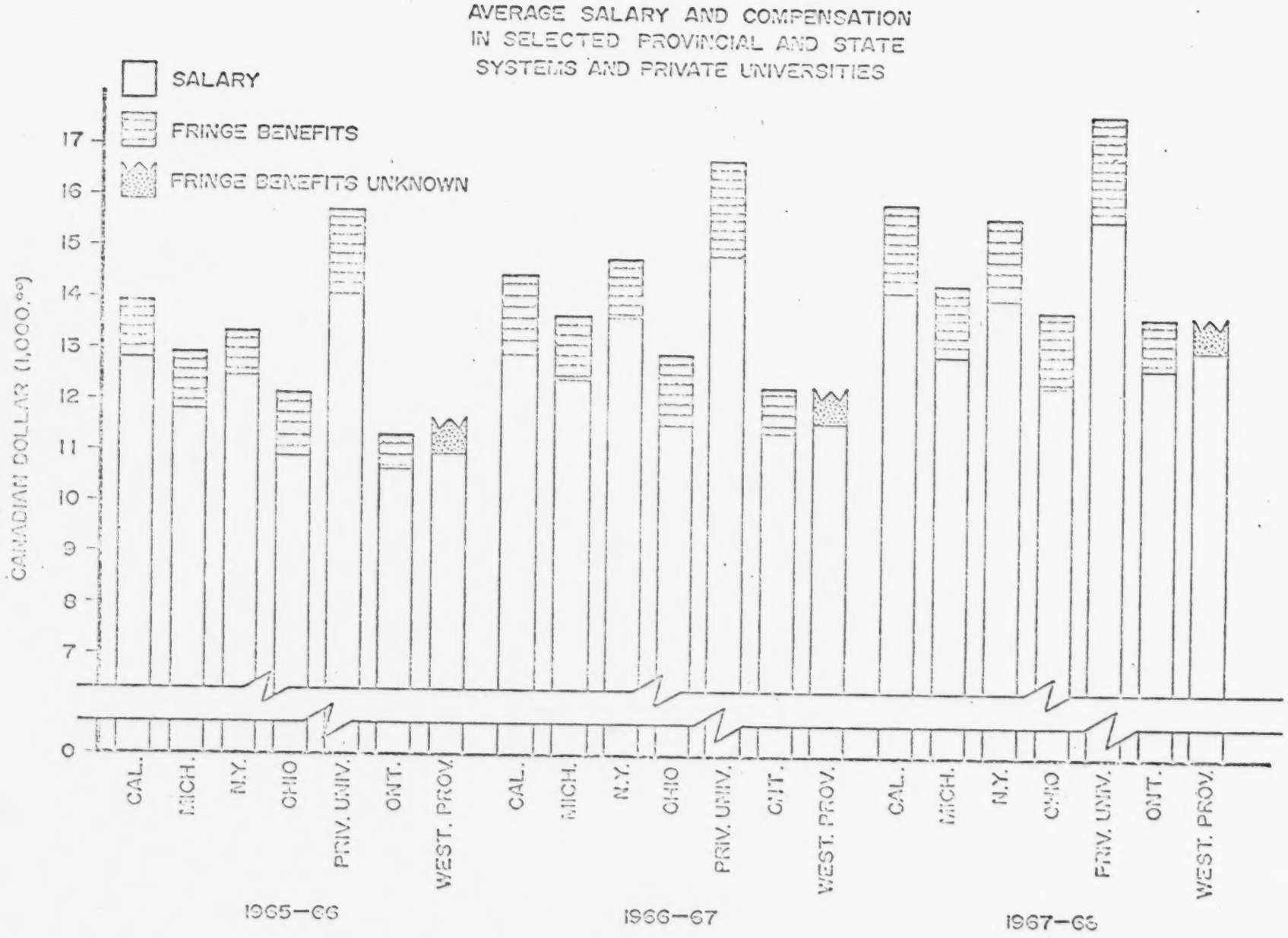

AVERAGE SALARY AND COMPENSATION
IN SELECTED PROVINCIAL AND STATE
SYSTEMS AND PRIVATE UNIVERSITIES
SALARY
FRINGE BENEFITS
FRINGE BENEFITS UNKNOWN
CANADIAN DOLLAR (1,000.00)
17
16
15
14
13
12
11
10
9
8
7
0
CAL.
MICH.
N.Y.
OHIO
PRIV. UNIV.
ONT.
WEST. PROV.
1965–66
1966–67
1967–68

FIGURE 2

The Ontario Confederation of University Faculty Associations (OCUFA) has recommended that salaries for 1969-70 be increased by 18% over those in 1968-69. This recommendation could be broken down roughly as follows: 4.5% cost of living, 2.5% productivity and 11% for adjustment of relative position. It would be difficult to argue with the first two although what the cost of living and productivity indexes will be in 1969-70 is open to speculation. In general we would support the principle that salaries should escalate at least by the amount necessary to equal cost of living increase and gain in productivity although we would not wish to argue about whether it should be 5% or 7% and would leave that decision to experts in national income accounting. The evidence for adjustment of relative position is impressive and it would be our desire to see about 7% of this adjustment achieved.

Recommendation:		Increase Over 1968-69	
Required Value	$662.80	$81.40	14%

Graduate Student Teaching Salaries (4.1% of Total)

Graduate student teaching salaries and academic support staff salaries were included with part-time academic staff in the August 67 report. In this analysis we have broken these out to show them separately. We propose a 7% increase in this component.

Recommendation:		Increase Over 1968-69	
Required Value	$66.80	$4.40	7%

Academic Support Salaries (12% of Total)

This component includes the salaries and wages of all of the administrative and technical support staff in the academic divisions. This component increased by 28% over 1967-68. We propose an increase of 10%.

Recommendation:		Increase Over 1968-69	
Required Value	$199.8	$18.20	10%

Library (7.5% of Total)

The universities of Ontario are firmly committed to participate in a "system plan" for library resources and services. The development of the Ontario university library system will involve co-ordination and centralization of technical processes, and interdependence in the area of graduate and research resources, along with self-sufficiency in undergraduate service. Recently there has been established by the Committee of Presidents of Universities of Ontario a Special Subcommittee on Assessment of Graduate and Research Library Requirements, with the task of establishing a method of assessing the adequacy of the Ontario university libraries to support existing and proposed programs of graduate study and research. It will take into account the long-term effects of co-operation among the universities at the discipline level as it presently exists and as it will be developed and extended in the future under the aegis of the Advisory Joint Council on Coordination of Ontario University Library Research Facilities.

Considerable progress was made during 1967-68 in laying the groundwork for the library system. Agreement and procedures for the co-operative use of library resources by faculty and graduate students of the various universities have been established, and this factor is being taken into account in library planning. The Inter-University Transit System to expedite inter-library loan service is in full and successful operation. A formal system development program for the Bibliographic Centre project is being created with the assistance of a full-time consultant. This comprehensive project will embrace both short-term and long-term objectives, and in the years to come will be the key factor in the

establishment of an effective system of building and sharing our resources to support the academic programs and goals of our universities.

All the procedures leading towards an Ontario library system are being worked out by persons in the forefront of the application of scientific management techniques to academic planning; increasingly, these procedures will produce efficiency and economy in the use of library resources and services by all the Ontario universities. The immediate problem for 1968-69 is to increase the total volume of library resources. Lacking an agreed quantitative standard, no measurement of the deficiency of the universities' library holdings at the present time is feasible, but the results of a series of surveys (Williams, Bonn, Downs) and the unanimous testimony of scholarly users indicate that a deficiency does exist. It is estimated that there is an over-all increase of about 10% in the annual rate of scholarly publication, and we are told by our librarians that we may expect an inflation factor of 10% in the next couple of years in the cost of library materials. Additionally, the rapid growth of our universities and the emergence of much more sophisticated library needs have resulted in a greater proportionate increase in the costs of library management and service.

We propose an increase of 10% for library salaries and books in 1969-70.

Recommendation:		Increase Over 1968-69	
Required value	$125.70	$11.40	10%

Fringe Benefits (4% of Total)

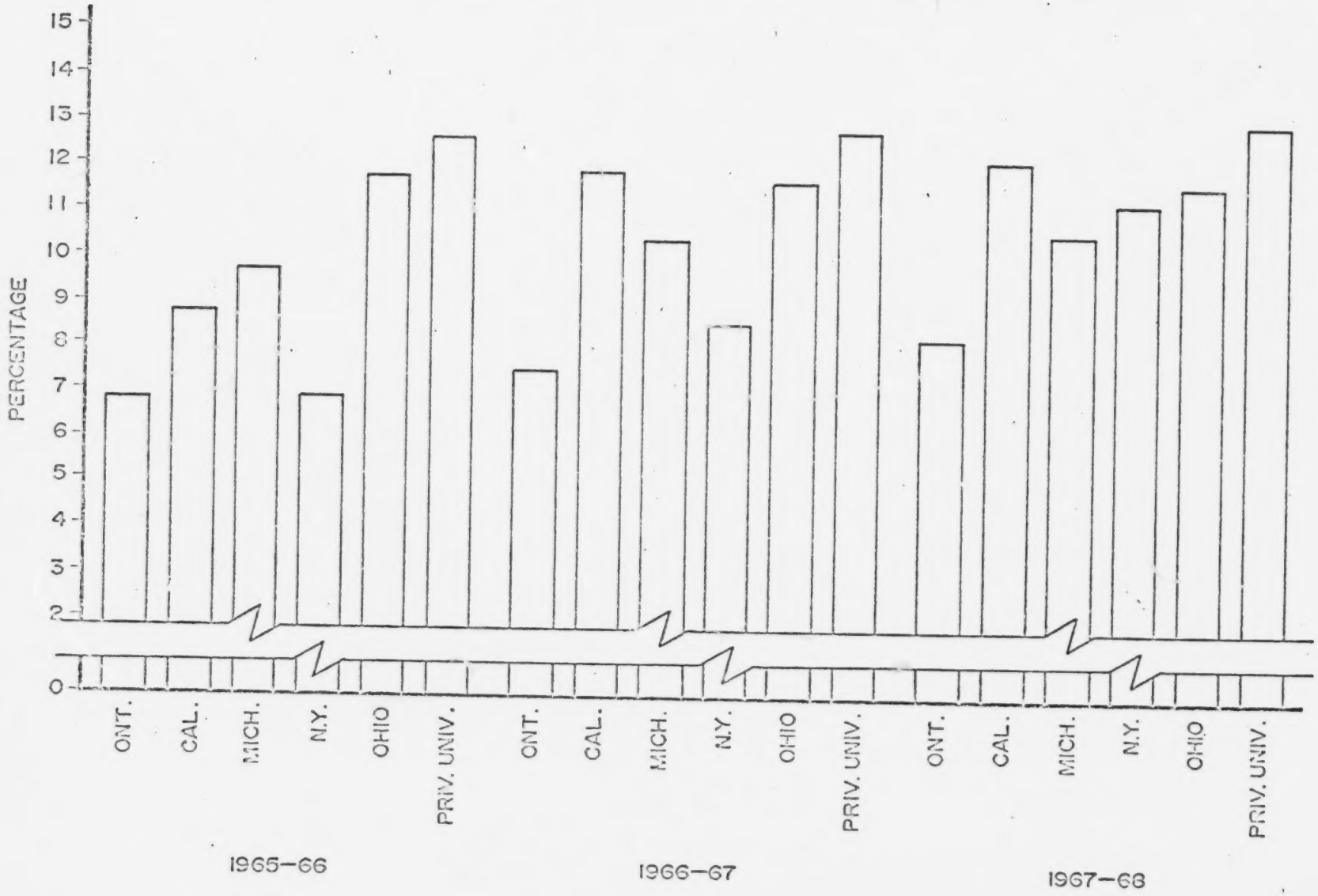
We note that from Table 6 and Figures 2 and 3 that Ontario fringe benefits have been lagging the other university systems to a considerable degree. This component includes contributions by the institutions for retirement programs, disability insurance and medical insurance. At this time we have no accurate information on the fringe benefits of the Western Provinces other than the sketchy information we received from Alberta, Manitoba and British Columbia last year. This information seemed to indicate an average of about 9% for 1967-68. Neither DBS or CAUT publish statistics on this and a telephone request to these two sources indicated that they could not be obtained at this time. However, it is our understanding that CAUT plans to update the study that it began several years ago.

In any case, it appears that a substantial upgrading of fringe benefits in Ontario universities is almost mandatory.

In 1967-68 and 1968-69 the ratios of fringe benefits to all academic salaries (including graduate students, library staff and academic support staff) were 5.9% and 6.7% respectively. We recommend that this be increased to 7.8%of academic salaries in 1969-70.

Recommendation:		Increase Over 1968-69	
Required Value	$78	$17.80	29.7%

FRINGE BENEFITS AS A PERCENTAGE OF AVERAGE SALARY IN SELECTED PROVINCIAL AND STATE SYSTEMS AND PRIVATE UNIVERSITIES



Other Academic Operating Expense (12.2 of Total)

This component includes all of the expenses of the academic departments and divisions to their instructional programs except salaries and fringe benefits. It includes replacements and additions to laboratory apparatus, technical equipment, and furniture; office supplies and other expenses in the academic departments; laboratory materials and supplies; machine rentals and maintenance contracts; etc. We had hoped to break this out into smaller components but time and circumstances prohibited it. However we expect to analyse this in greater detail in a supplement to this report. The recommendation at this time is 7%.

Recommendation:		Increase Over 1968-69	
Required Value	$198.30	$13.00	7%

Administrative Expense (6.7% of Total)

It is encouraging to see that Administrative Expense increased from 6.1% of the total from 67-68 to 68-69. We suggested in the August report that austere administrative programs were not necessarily the most cost effective. We have observed before that we need to do a great deal in the way of improving the salary levels of administrative and technical staff and we are making headway in this area for these essential people in administration, maintenance and in the academic divisions. While we are quite sure that there is definite improvement in our allocation of resources to this component it is possible that a portion of that improvement is fictitious and merely represents a transfer from the basket component of Miscellaneous and Other Operating Expenses. We recommend a 7% increase in this component in 1969-70.

Recommendation:		Increase Over 1968-69	
Required Value	$108.40	$7.10	7%

Maintenance (11.4% of Total)

This component increased almost 11% from 1967-68 to 1968-69. While we believe that this upward trend will continue because of increased operating expenses of new buildings, we do not have the breakdowns to justify more than the nominal 7% increases suggested for certain of the other components. We would expect the supplement on breakdown of other operating expenses to include a breakdown of maintenance costs also.

Recommendation:		Increase Over 1968-69	
Required Value	$184.80	$12.10	7%

Recommendations of the Value of the Basic Unit in 1969-70

The component values recommended in the foregoing rationale are summed to yield a preferred unit value of $1610 as shown in Table 7.

We would like to emphasize again at this point that our selection of expenditure patterns is not obligatory for any university. We have arrived at these values by working from bases established by averaging expenditures per unit at the eight universities. No matter what pattern of support is chosen, whether it is one of the above or another not shown, we would expect each university to allocate its resources according to the goals established for that university. And, in the next year, we trust we will be able to continue tracking these expenditures in our continuing search for improving this important part of the dialogue between the Ontario universities and the Committee on University Affairs.

TABLE 7

BUDGETED ALLOCATIONS OF BASIC INCOME UNIT VALUES IN 1967-68 AND 1968-69 AND SUGGESTED VALUE OF THE UNIT 1969-1970?

	1967-68 Budgeted Allocation of $1320		1968-69 Budgeted Allocation of $1450		Expense Per Unit Pattern in 1969-70		Increase	
	$	%	$	%	$	%	$	%
Full-Time and Part-Time Teaching Staff Salaries	567.50	40.8	581.40	38.3	662.80	39.6	81.40	14.0
Graduate Student Teaching Salaries	55.60	4.0	62.40	4.1	66.80	4.0	4.40	7.0
Support Staff Salaries	141.90	10.2	181.60	12.0	199.80	11.9	18.20	10.0
Library Staff Salaries	61.20	4.4	65.90	4.3	72.50	4.3		10.0
Library Books	47.30	3.4	48.40	3.2	53.20	3.2	11.40	10.0
Pension and Other Fringe Benefits	48.70	3.5	60.20	4.0	78.00	4.7	17.80	29.7
Other Academic Expenses	155.80	11.2	185.30	12.2	198.30	11.8	13.00	7.0
Subtotal (Academic)	1078.00	77.5	1185.20	78.1	1331.40	79.5	146.20	12.3
Administration	84.90	6.1	101.30	6.7	108.40	6.5	7.10	7.0
Maintenance	155.80	11.2	172.70	11.4	184.80	11.0	12.10	7.0
Miscellaneous	72.30	5.2	58.40	3.9	50.40	3.0	- 8.00	-13.7
Subtotal (Admin.)	313.00	22.5	332.40	21.9	343.60	20.5	11.20	3.4
Grand Total	1491.00	100.0	1517.60	100.0	1675.00	100.0	157.40	10.4
Less Special Grants/Unit	71.00		67.60		65.00		2.60	
Unit Value	1320.00		1450.00		1610.00			
Increase in Unit Value			130	9.8	160	11.0	160.00	11.0

Estimate of the Increase in Total Provincial Grants

For planning purposes we would estimate operating grant support would be substantially as follows: There are about 97,000 full-time equivalent students in 1968-69 representing slightly more than 163,000 income units. We estimate there will be about 110,000 full-time equivalent students converting to 190,000 income units in 1969-70. The table below shows how the increase recommended in Table 7 would affect basic operating and grants income if it were to be applied in 1969-70.

		$ m	%
Estimated Basic Operating Income		306.0	
Less BOI in 1968-69		236.4	
Estimated increase in BOI		69.6	29.4
From Increased Units	$39.2		16.6
From Increase in Unit Value	30.4		12.8
Estimated Basic Operating Income in 69-70		306	
Less Estimated Fee Allowance		55	
Estimated Formula Grants		251	
Plus Estimated Special Grants		16	
Total Estimated 69-70 Grants		267	
Less Estimated 68-69 Grants		208	
Estimated Increase in Total Grants		59	28%

Operating Formula Support of Medicine

A special committee headed by Dean Chute of the University of Toronto Faculty of Medicine has been appointed by the Committee of Presidents to study the question of medical costs and their relationships to funds obtained by the universities via the weights assigned to medical students. A separate report has been submitted by the special committee which contains recommendations and an explanation of the methodology used to arrive at the recommendations. We should like to make some comments about this whole problem.

Taking Medicine out of the formula for special treatment, while eliminating the problem with respect to the formula, would be likely to cause more severe problems. For one, a budgetary separation, which this would surely mean, would hamper severely the cause of academic integration if it did not sink it entirely. A second budgeting problem which would be introduced for Medicine itself is that the meagre cost evidence we have strongly supports the contention that Medicine is drawing funds that it does not earn by the formula away from other programs in the University. Medicine may now view this as a threat to continued support for Medicine in the internal budgeting process but, under the formula, Medicine can call on the university for the funds it needs. Outside the formula, it is more likely that Medicine will be limited to exactly that which is provided for in the earmarked grant. Further, it should be evident that Medicine is one program where the expenditure by the university is certain to equal or exceed the money earned for the University by the Medical weights, that is, the universities recognise that the public interest demands that money coming into Medicine should go to Medicine. (We would argue against this equation in most other programs however).

Looking at it from the other side, keeping Medicine in the formula causes some problems also. We do not have really accurate information yet to be able

to compare program costs to program income and it is quite evident that the AUCC cost study is not going to give us the hard data we need for such a comparison. Thus, we do not know whether or not the deficiency in the medical weight is not counterbalanced by an overweighting in other programs. If the Province is of a mind to recognize this deficiency in the medical weighting with additional funds the problem for the universities is solved - simply change the weight! If on the other hand, we add more units to the system by changing the weights and the total funds limitation remains the same, the result is a smaller income unit value and a redistribution of funds to get more income to the universities with medical schools. In this type of redistribution, universities without medical schools would be the losers. An additional problem is that the changes in configurations of the entire medical program are so rapid that a weight of say 5 for medical students and 2.5 for interns which appears to be sufficient in 1969-70, might be inadequate in 1970-71. Indeed, the special committee is likely to present evidence that the average change required from 67-68 to 68-69 to meet costs of Medical students for the four universities studied is in the order of +0.7 weight.

Of course, there is also the danger that removal of one program from the formula, no matter how justified, may cause pressures to remove other programs and ultimately lead to a sinking of the formula system.

In view of these arguments both for and against removal and for an upward escalation of the medical weights we have the following recommendations:

1. Any adjustment in the weight for Medicine which might be recommended from the evidence presented by the special subcommittee should be considered as an interim measure and it is most important that it be viewed as an upward adjustment of funds rather than a redistribution.

2. Serious consideration should be given to inserting interns and residents into an existing category possibly Categories 5 or 6.

3. We understand that the methods for arriving at costs which will be presented by the committee could not properly take into account academic resources outside Medicine that were used to educate medical students nor was it possible to assess the portions of medical resources which were used to educate non-medical students. With this information lacking, the cost analysis is crude. For the future, and to the extent that universities can satisfy the Committee on University Affairs that the assessment of medical costs is valid, CUA should be prepared to recommend that supplementary special grants over and above the formula grant should be awarded to the universities each year on the basis of hard evidence of cost escalation beyond that normally caused by inflation. This would mean the continuation of the special committee with expanded terms of reference.

The above actions will assure that the great difference between medical student costs and related income will be at least partially reduced, the integrity of the formula as an <u>income formula only</u> is maintained, and that the means will exist to show the funding agency that additional support is required.

APPENDIX 1

EXPLANATION OF EXPENSE COMPONENTS

1) Total full-time and part-time teaching staff salaries

2) Graduate student teaching salaries

3) Academic support staff salaries

4) Library staff salaries

5) Library books

6) Pension and other fringe benefits

7) Other Academic Expenses

   (a) Replacement and additional furniture and equipment
   (b) Other expenses including office and laboratory supplies

8) Total Administration Expenses

   (a) Salaries
   (b) Pension and other fringe benefits
   (c) Replacement and additional furniture and equipment
   (d) Other expenses including office supplies and machine rentals

9) Total Plant Maintenance Expenses

   (a) Salaries
   (b) Pension and other fringe benefits
   (c) Replacement and additional furniture and equipment
   (d) Other expenses including fuel, electricity, water, cleaning supplies and building insurance

10) Miscellaneous Expenses

   (a) Salaries and expenses of additional service departments e.g. Development Office, Information Office, Alumni Affairs

   (b) Other expenses including provision for salary adjustments, Workmen's Compensation Insurance, legal fees, and bank charges.

11) Other Operating Expenses

APPENDIX 2

UNIVERSITIES AND UNIVERSITY SYSTEMS
INCLUDED IN THE SALARY ANALYSIS

UNIVERSITIES OF ONTARIO

Toronto

Western

Queens

McMaster

Waterloo

Carleton

Ottawa

Windsor

Guelph

York

Laurentian

Lakehead

Brock

Trent

Scarborough

Erindale

UNIVERSITIES OF THE WESTERN PROVINCES

University of Manitoba

University of Saskatchewan

University of Alberta - Edmonton

University of Alberta - Calgary

University of British Columbia

Simon Fraser University

Victoria University

AMERICAN PUBLIC UNIVERSITIES

California

University of California

University of California Medical School

Michigan

Central Michigan University

Eastern Michigan University

Michigan State University

Northern Michigan University

University of Michigan

University of Michigan Medical School

Wayne State University

Wayne State University Preclinical Medical School

Western Michigan University

New York

CUNY - Brooklyn College

CUNY - City College

CUNY - Hunter College

CUNY - Queens College

State University at Albany

State University at Binghamton

State University at Buffalo

State University at Stony Brook

Ohio

Bowling Green State University

Cleveland State University

Kent State University

Miami University

Ohio State University

Ohio University

AMERICAN PRIVATE UNIVERSITIES

University of Rochester

Cornell University

University of Pennsylvania

Washington University - St. Louis